

U.S. Patent Application Serial No. **10/548,084**
Amendment filed August 12, 2008
Reply to OA dated May 13, 2008

AMENDMENTS TO THE SPECIFICATION

Amend the specification as follows:

Please amend the paragraph beginning on page 3, line 24, as follows:

The working member in manual opening and closing may press the valve element holder downward through the working member in automatic opening and closing, or the working member in manual opening and closing may (directly) press the valve element holder without using the working member in automatic opening and closing. A first embodiment (~~claims 2 to 5~~) belongs to the former, and a second embodiment (~~claims 6 to 8~~) belongs to the latter. According to the first embodiment, the valve stem (stem-shaped body) serving as the working member in automatic opening and closing in the automatic valve is applied to the working member in automatic opening and closing of the present invention, the working member in manual opening and closing which was moved downward by the manual operation moves the working member in automatic opening and closing downward and, accordingly, the working member in automatic opening and closing presses the valve element holder downward. According to the second embodiment, the valve stem (stem-shaped body) serving as the working member in manual opening and closing in the manual valve is applied to the working member in manual opening and closing of the present invention, the working member in manual opening and closing which was moved downward by the manual operation directly presses the valve element holder downward, and the working member in automatic opening and closing is vertically moved by the automatically opening and closing means regardless of the vertical movement of the working member in manual opening and closing.

Please amend the paragraph beginning on page 4, line 25, continuing through page 6, line 25, as follows:

As a more concrete constitution of the fluid control device, a movable channel member movably fitted in a tube-shaped body serving as the working member in manual opening and closing is further provided. Herein, the working member in manual opening and closing is arranged in a fluid-tight casing and moved to an automatic opening and closing enabled position at which there is a predetermined gap between the working member in automatic opening and closing and an upper surface of a part moving integrally therewith, to an automatic opening and closing disabled position at which it abuts on the upper surface of the part moving integrally with the working member in automatic opening and closing, and to a working position at which it is further moved downward to lower the working member in automatic opening and closing by manually operating an operation handle, the movable channel member is stopped at a position where its travel distance is smaller than a travel distance when the working member in manual opening and closing is moved from the automatic opening and closing enabled position to the automatic opening and closing disabled position, a compressed fluid channel is formed in the working member in automatic opening and closing, which has an upper end provided in a lower part of the working member in manual opening and closing and extends downward from the upper end to be continued to a compressed fluid inlet chamber, a compressed fluid channel positioned near a lower end of the movable channel member and a fluid outlet channel positioned near an upper end of the movable channel member are formed in the casing, a compressed fluid channel continued to the compressed fluid channel of the casing when the working member in manual opening and closing is in the automatic opening and closing enabled position, and a fluid outlet channel continued to the fluid outlet channel of the casing when

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the working member in manual opening and closing is lowered to the automatic opening and closing disabled position are formed in the working member in manual opening and closing, and a compressed fluid channel which connects to the compressed fluid channel in the working member in manual opening and closing, to the compressed fluid channel in the working member in automatic opening and closing when the working member in manual opening and closing is in the automatic opening and closing enabled position, and a fluid outlet channel which connects the fluid outlet channel in the working member in manual opening and closing to the compressed fluid channel in the working member in automatic opening and closing when the working member in manual opening and closing is lowered to the automatic opening and closing disabled position and the movable channel member is relatively moved upward with respect to the working member in manual opening and closing, and shuts off the connection when the working member in manual opening and closing is in the automatic opening and closing enabled position are formed in the movable channel member (~~the invention of claim 2~~ first embodiment).

Please amend the paragraph beginning on page 7, line 1, as follows:

According to the ~~invention of claim 2~~ first embodiment, the part moving integrally with the stem-shaped body is a piston forming the upper surface of the compressed fluid inlet chamber normally. The working member in manual opening and closing is integrated with the operation handle through an operation axis, and a male thread screwed in a female thread provided in the casing is formed in the working member in manual opening and closing. Thus, when the operation handle is turned, the working member in manual opening and closing in the automatic opening and closing enabled position is lowered while being rotated. Although an operation angle of the handle

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is not particularly limited, when this angle is set at 90°, operability is preferable. The compressed fluid channel and fluid outlet channel formed in the casing, the stem-shaped body, the working member in manual opening and closing and the movable channel member are not particularly limited, and various kinds of constitutions can be employed so that they can connect the compressed fluid inlet chamber to the outside of the casing and shut off the compressed fluid inlet chamber in accordance with the movement of the working member in manual opening and closing and the movable channel member.

Please amend the paragraph beginning on page 7, line 22, as follows:

According to the fluid control device of the ~~invention of claim 2~~ first embodiment, the working member in manual opening and closing is normally retained in the automatic opening and closing enabled position, and in this state, the compressed fluid can be introduced from the outside to the compressed fluid inlet chamber or can be discharged from the compressed fluid inlet chamber to the outside through the compressed fluid channel formed in the fluid control device. In short, the fluid control device functions as the normal automatic valve. When the working member in manual opening and closing is moved to the automatic opening and closing disabled position by operating the operation handle, the lower surface of the working member in manual opening and closing abuts on the upper surface of the part which is moved integrally with the stem-shaped body and at the same time, the compressed fluid is discharged from the compressed fluid inlet chamber to the outside through the fluid outlet channel formed in the fluid control device. Thus, the pressure in the compressed fluid inlet chamber working on the stem-shaped body is removed. When the operation handle is further moved from this state, the working member in manual opening and closing is

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further moved downward and, accordingly, the stem-shaped body is moved downward. Thus, the movement of the stem-shaped body, that is, the channel opening and closing operation can be easily performed by the manual operation in the event of an emergency.

Please amend the paragraph beginning on page 11, line 3, as follows:

As another more concrete constitution of the fluid control device for example, for example, the working member in manual opening and closing serves as a stem-shaped body which is moved by a manual operation to an automatic opening and closing disabled position at which a lower end presses a top surface center of the valve element downward and to an automatic opening and closing enabled position at which the lower end is separated from the top surface center of the valve element holder, and the working member in automatic opening and closing serves as a tube-shaped body which is fitted in the stem-shaped working member in manual opening and closing so as to be relatively and vertically movable and moved to a closing position at which a lower end is biased by the elastic member to press a top surface periphery of the valve element holder downward and to an opening position at which the lower end is separated from the top surface center of the valve element holder by automatically opening and closing means (~~the invention of claim 6~~ second embodiment).

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Please amend the paragraph beginning on page 11, line 21, as follows:

According to the ~~invention of claim 6~~ second embodiment, the concrete constitution of the automatically opening and closing means (compressed air, electromagnetic force or the like) can be optional, and the operation of the working member in manual opening and closing can be performed regardless of the force working from the automatically opening and closing means to the working member in automatic opening and closing.